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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WELLS, LAUREN Q

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 10/23/2003

26

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,183

Applicant(s)

DEPUIS, CHRISTINE

Examiner

Lauren Q Wells

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33,38-82 and 87-102 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33,38-82 and 87-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claims 1-33, 38-82, 87-102 are pending. The Amendment filed 8/12/03, Paper No. 27, cancelled claims 34-37 and 83-86, and amended claims 1, 8, 12, 16, 50, 61, 65, 98 and 102.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/12/03 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-33, 38-32, 37-102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(ii) The phrase "at least one silicone derivative (b)" in claims 1, 50, and 102, and the phrase "at least one silicone derivative (b) is chosen from at least one derivative of formula (I) in claims 19, 26, 68, and 75, is vague and indefinite, as the metes and bounds of these claims are unascertainable. While formula (I) is defined, derivatives of formula are not. Thus, it is not clear what compounds are encompassed by the term derivative. Does derivatives mean amide forms, hydroxyl forms, amino forms. . .? The specification does not define this phrase and one of ordinary skill in the art would not be apprised of its meaning.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33, 38-82, and 87-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenburg et al. (WO 99/04750) in view of Samain et al. (6,511,651).

The instant invention is directed toward a composition comprising a silicone/acrylate copolymer that is derived from radical mediated polymerization of at least one ethyleneically unsaturated monomer (a) and at least one silicone derivative (b) comprising at least one oxyalkylene group, and apolyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers, and methods of applying such compositions to the hair.

Blackenburg et al. teach the use of polymers containing polysiloxanes for hair cosmetic formulations. A water-dispersible polymer comprising ethylenically unsaturated monomers and polyalkylene oxide containing silicone derivatives is taught. The silicone derivative of formula (I) of the instant invention is taught, as is its R^1 , R^2 , R^3 , and R^5 constituents. Dimethicone copolyols and silicone surfactants are taught as preferred compounds of formula I. The ethylenically unsaturated monomer of formula (I_a) of the instant invention is also taught, as is its X , R^7 , and R^6 constituents, as are ethylenically unsaturated monomers further comprising silicone atoms, fluorine atoms, and thio groups, which meets claims 18 and 67. The silicone derivative (b) is taught as comprising 0.1-50% of the copolymer. The silicone/acrylate copolymers are soluble in a proportion of greater than 0.1 g/l, and preferably more than 0.2 g/l in a

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water/ethanol mixture, which meets claims 30, 31, and 79-80. Cosmetic additives taught include fragrances, preserving agents, vitamins, proteins, and others, which meets claim 48 and 97. A process of making and using the cosmetic product is taught. Specifically taught are hair cosmetic preparations, such as hair sprays. The instant polymers are taught as strengthening hairdos and providing a desired property profile for hair fixatives without imparting an unpleasantly dull and unnatural feel. The reference lacks polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers, preferred cosmetic mediums, and preferred percent weight. See entire disclosure.

Samain et al. teach an aerosol device comprising a container containing an aerosol composition, comprising a liquid phase containing a fixing material in a solvent and a propellant. The fixing material is taught as rigid enough to ensure that the hair is held in place and fragile enough for the user to be able to destroy the welds by combing or brushing the hair, without damaging the scalp or the hair. The fixing materials are taught as polymers containing vinyl lactam units, wherein polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers are taught as preferred polymers that comprise 6-9% of the composition. Ethanol is taught as the preferred solvent. It is taught that other fixing polymers can be combined with the polymers containing vinyl lactam units. See abstract; Col. 1, lines 25-30; Col. 3, lines 42-60; Col. 4, lines 55-61; Col. 5, line 1-line 50.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers, as taught by Samain et al., to the hair fixative composition of Blackenburg because a) Blackenburg and Samain et al. both teach hair care fixative compositions in the form of sprays; b) Samain et al.

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teach polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers as rigid enough to ensure that the hair is held in place and fragile enough for the user to be able to destroy the welds by combing or brushing the hair, without damaging the scalp or the hair; c) Blackenburg teaches that vinyl lactam homo and copolymers are known in the art as synthetic polymers that have been used for almost 50 years to strengthen hairdos; d) Blackenburg teaches that other cosmetic agents can be added to his composition; thus, one of skill in the art would be motivated to add the polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers of Samain to the composition of Blackenburg because of the expectation of achieving synergistic fixative properties and of producing a hair spray that imparts an optimum balance of rigidity and fragility without imparting an unpleasantly dull and unnatural feel to the hair. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the terpolymers, ethanol (solvent), and propellant of Samain et al. to the hair fixative composition of Blankenburg et al. because it is obvious to combine two compositions taught by the prior art to be useful for the same purpose to form a third composition that is to be used for the very same purpose. In re Kerkoven, 205 USPQ 1069 (CCPA 1980).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the terpolymers as comprising .2%-5% of the silicone acrylate copolymers and to have taught the silicone acrylate copolymers as comprising 0.1-20% of the composition because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (In re Aller, 105 USPQ 233) and because Samain et al. teach fixatives as comprising 6-9% of a hair fixing composition.

It is respectfully pointed out that since Samain et al. teach the same polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers as the instant invention, then the terpolymers of Samain et al. must have the same molecular weight, as a compound and its properties are inseparable.

It is further respectfully pointed out that while it is not explicitly stated, hair sprays, such as those taught by Blankenburg et al. are applied to the hair.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-4:30), with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw


SREENI PADMANABHAN
PRIMARY EXAMINER 9/8/03